

IMPACT OF SCHOOL AND HOME ENVIRONMENT ON DIVERGENT PRODUCTION ABILITIES OF ADOLESCENTS

SHALLU RANA¹ & CHANDRA K. SINGH²

¹Msc. Student I.C College of Home Sciences, CCS Haryana Agricultural University, Hisar, India

²Professor, Department of Human Development and Family Studies, COHS, CCS HAU, Hisar, India

ABSTRACT

This study was conducted to determine the role of school and home environment in enhancing the divergent production abilities or creativity of adolescents studying in 9th and 10th standard. The sample was selected from 5 schools of different educational boards namely HBSE (state board), CBSE (central board) and ICSE (international board). The total sample of 300 students were selected randomly, consisting of 150 boys and 150 girls. For assessment of creativity Divergent Production Abilities developed by Sharma (2011) was used. Data for home and school environments were recorded by using scales Home Environment Inventory (1989) and School Environment Inventory (1984) by Mishra. The results of the research highlighted that school environment is the important predictor of creativity as compared to home environment. The paper also examines that there is no significant relationship between academic achievement and divergent production abilities of respondents. Also, the significant differences were observed between the mean scores in subspects of creativity of respondents studying different educational boards.

KEYWORDS: Creativity, Divergent Production Abilities, School Environment & Home Environment

Received: Dec 27, 2016; **Accepted:** Jan 24, 2017; **Published:** Jan 30, 2017; **Paper Id.:** IJESRFEB201713

INTRODUCTION

Creativity is mental process which involves thinking, responding, connecting with previous experiences and creating the unusual, different but noble creation. A nation's progress, greatness depends not only on its material achievements but also upon its great thinkers, artists and scholars that are regarded as creative and genius. And in fact historical record provide evidence that cultures have collapsed because of failure to utilize, intelligent and imaginative methods for solving their problem (Torrance, 1962). Children spent most of their time in schools when compared to the hours they spend at home. Creativity refers to a stable trait that enables the production of novel, original and appropriate solutions and is separate from intelligence and distributed throughout the population (Guilford, 1950). Creativity is expressed through the state-like constructs of creative performance and creative thinking (Torrance, 2008). Adolescence is a highly eventful and unique period of life involving growth and development that lays an important foundation for the adolescent years. This is the period in which adolescent have to make adjustment with the mental problems related to their home and school environment. Family and school are places where the adolescents get experience and learn about their future role.

A school's environment is the thread that connects the multitude of activities on a campus. In many respects this thread is almost invisible, yet everyone experiences its influence. A school's physical environment includes the school building and the surrounding environments such as noise, temperature, and lighting as well as physical, biological, or chemical agents. The psychosocial school environment encompasses the attitudes, feelings,

and values of students and staff. Physical and psychological safety, positive interpersonal relationships, recognition of the needs and success of the individual, and support for learning are all part of the psychosocial environment. Other factors that can affect a school's environment include: the economy; social, cultural, and religious influences; geography; socioeconomic status of students' families and legal, political, and social institutions.

The School environment can have a dramatic impact on how students learn. It can affect mood, motivation, creativity and productivity of students positively or negatively. Good education proper care and provision of opportunities for creative expression inspire, stimulate and sharpen creative minds. Creativity encourages and demands complete freedom to accept and express the varied responses. A positive environment or situation that is open, democratic and free may be said to contribute positively to the development of creative potential. On the other hand, a closed society, culture or situation may act as a strong deterrent to the development of initiative within the individual.

Home Environment

The home and the family provide the first social environment to a child and determine as to what his first attitudes would be towards people and social activities. The kind of child training used in the home has a pronounced influence on later social adjustment. All the intellectual, moral, physical, social, emotional and educational needs are fulfilled at home. The environment created at home accelerates or retards the development of the child and influences the achievement and aspiration of the child. The Home environment inventory (Mishra, 1989) is an instrument designed to measure the psychosocial climate of home as perceived by children. It consisted of sub aspects like Control, Protectiveness, Punishment, Conformity, Social isolation, Reward, Deprivation of privileges, Nurturance, Rejection and Permissiveness.

School Environment

School is the primary setting where individual first encounter the world of work. Schools are vital forces in children's development affecting their motivation to learn the modes of remembering, reasoning, problem solving, social and moral understanding. Schools put emphasis on developing intellectual skills and concepts necessary for civic competence. In school the most important factor is the atmosphere existing there. School environment is a powerful force and plays a pivotal role in the all-round development of the child. School Environment Inventory (Mishra, 1984) is an instrument designed to measure the psycho-social climate of schools as perceived by the pupils. There are various aspects of school environment namely Creative stimulation, Cognitive encouragement, Permissiveness, Acceptance, Rejection and Control.

Divergent Production Abilities/Creativity

The test developed by K.N Sharma (2011) was used for assessment. On the basis of model by Guilford gave six divergent production abilities: Ideational fluency, associational fluency, expressional fluency, spontaneous flexibility, originality and semantic elaboration. The sub aspects of divergent production abilities are Word fluency, Ideational fluency, associational fluency, expressional fluency, spontaneous flexibility, adaptive flexibility, originality, elaboration and overall creativity.

METHODOLOGY

Locale of Study

This study was conducted in urban schools of Hisar city. The choice of location was purposive because of the ease of access and availability of all type of educational board schools.

Sampling

For collection of sample total five schools representing HBSE (state board), CBSE (central board) and ICSE (international board) educational boards were randomly selected. The total sample consisted of 150 boys and 150 girls studying in 9th and 10th class. The data was collected during the period of July, 2015 to Jan, 2016 using survey method.

Data Analysis

The collected data were classified and tabulated in accordance with the standards laid down in order to arrive at meaningful and relevant inferences as per the objectives. For analysis of data, categorization, coding, tabulation, statistical analysis were done. For interpretation of results different statistical tools like mean, frequency, percentage, standard deviation, ANOVA, Independent sample t-test and coefficient of correlation was used. The data processing was done by SPSS 17.0.

RESULTS

Creativity Among Adolescents

Table 1 presents data on distribution of respondents for their creativity and their sub aspects on the basis of educational boards. As the table reveals that majority of CBSE students (77%) had medium level of scores in word fluency while 13 per cent were low achievers and only 10 per cent were having high level of word fluency. Similar trends were observed among HBSE students where 75 per cent had medium level of word fluency followed by 20 per cent had low levels in same aspect. The maximum percent of ICSE students (81%) had medium level of word fluency followed by 13 per cent had achieved high levels and only 6 per cent were low achievers.

In ideational fluency major percent of CBSE students (55%) had medium levels while 27 per cent had high levels and 18 per cent had low level of ideational fluency as compared to HBSE students where 56 per cent had medium level followed by 42 per cent had low levels and only 2 per cent were highly fluent in ideational fluency sub aspect of creativity.

In associational fluency the majority of students (75.3%) from total sample possessed medium level representing 79 per cent of CBSE students followed by 77 per cent of ICSE students and 70 per cent of HBSE students. Board wise comparison shows that only 1 per cent students studying in ICSE board school were low in associational fluency followed by CBSE board (8%) and HBSE board (16%) Table 1 summarizes that more than half of the students (59%) of CBSE schools were moderately expressional followed by 14 per cent were having low level and 11 per cent had high level of expressional fluency.

Majority of respondents from all the educational boards had low scores in spontaneous flexibility. The major percent of CBSE (85%), HBSE (89%) and ICSE (80%) board students had low levels in spontaneous flexibility sub-aspect of creativity.

In terms of adaptive flexibility, originality and elaboration same trends were observed. As 83 per cent of CBSE students followed by 70 per cent of HBSE students and 63% of ICSE students were low in adaptive flexibility.

With regard to originality more percentage of CBSE students (73%) and same percentage among both HBSE (85%) and ICSE (85%) students had low level of originality. Similarly, 77 per cent of respondents from CBSE followed by 58 per cent of HBSE students performed low in elaboration. On the contrary 51 per cent of ICSE students had medium levels in originality.

Finally, in overall creativity 89.6 per cent of the total respondents had medium levels. Among respondents from CBSE board's majority of students (85%) had medium level of overall creativity while majority (92%) of HBSE students had medium level of overall creativity and same trend was followed among ICSE board students.

Table 1: Creativity among Adolescents across Educational Boards

| Sr. No. | Type of Board Variables | CBSE (N=100) | HBSE (N=100) | ICSE (N=100) | Total (N=300) |
|---------|--|----------------------------------|----------------------------------|----------------------------------|------------------------------------|
| 1. | Word fluency a. Low (0-8) b. Medium(8.1-16) c. High(16.1-26) | 13(13.0) 77(77.0) 10(10.0) | 20(20.0) 75(75.0) 5(5.0) | 6(6.0) 81(81.0) 13(13.0) | 28(9.3) 233(77.6) 13(4.3) |
| 2. | Ideational fluency a. Low (0-8) b. Medium (8.1-16) c. High (16.1-26) | 18(18.0) 55(55.0) 27(27.0) | 42(42.0) 56(56.0) 2(2.0) | 17(17.0) 72(72.0) 11(11.0) | 77(25.66) 183(61.0) 40(13.3) |
| 3. | Associational fluency a. Low (0-8) b. Medium (8.1-16) c. High (16.1-26) | 8(8.0) 79(79.0) 13(13.0) | 16(16.0) 70(70.0) 13(13.0) | 1(1.0) 77(77.0) 21(21.0) | 25(8.33) 226(75.3) 47(15.6) |
| 4. | Expressional fluency a. Low (0-8) b. Medium (8.1-16) c. High (16.1-26) | 14(14.0) 53(53.0) 11(11.0) | 41(41.0) 59(59.0)- | 17(17.0) 75(75.0) 8(8.0) | 72(24.0) 187(62.33) 19(6.3) |
| 5. | Spontaneous flexibility a. Low (0-1) b. Medium (1.1-2.5) c. High (3-4) | 85(85.0) 11(11.0) 3(3.0) | 89(89.0) 9(9.0) 2(2.0) | 80(80.0) 16(16.0) 4(4.0) | 249(83.0) 36(12.0) 9(3.0) |
| 6. | Adaptive flexibility a. Low (0-1) b. Medium (1.1-2.5) c. High (3-4) | 83(83.0) 5(5.0) 12(12.0) | 70(70.0) 21(21.0) 9(9.0) | 63(63.0) 35(35.0) 2(2.0) | 216(72) 68(22.6) 16(5.3) |
| 7. | Originality a. Low(0-1) b. Medium (1.5-2.5) c. High (3-4) | 73(73.0) 27(27.0)- | 85(85.0) 14(14.0) 1(1.0) | 85(85.0) 14(14.0) 1(1.0) | 243(81.0) 27(55.0) 2(0.6) |
| 8. | Elaboration a. Low (0-1) b. Medium (1.5-2.5) c. High (3-4) | 77(77.0) 16(16.0) 3(3.0) | 58(58.0) 6(6.0) 35(35.0) | 34(34.0) 51(51.0) 15(15.0) | 169(56.3) 102(34.0) 24(8.0) |
| 9. | Overall creativity a. Low (10-33) b. Medium (33.5-66) c. High (66.5-99) | 4 (4.0) 85 (85.0) 11(11.0) | 6(6.0) 92(92.0) 2(2.0) | 92(92.0) 8(8.0) | 10(3.3) 269(89.6) 21(7.0) |

Figures in parentheses indicate percentage

Comparison of Adolescent's Creativity on the Basis of Gender

Table 2 highlights the results related to comparison of various aspects of creativity on the basis of gender using t-test. Significant differences were observed in ideational fluency, expressional fluency, spontaneous flexibility and overall creativity. Comparative mean values show that males (M=12.98) outscored females in terms of ideational fluency. Similarly in expressional fluency males (M=13.34) were more fluent against their counterparts.

While inverse results were observed in case of spontaneous flexibility in which females (M=0.60) scored higher than their counterparts. The significant t-value in overall creativity shows that males (M=59.47) were more creative than females. Non-significant differences were seen in rest of the aspects of creativity against gender.

Table 2: Mean Differences in Various Aspects of Creativity on the Basis of Gender

| Variables | Gender | | | | |
|-------------------------|--------------|-------|----------------|------|---------|
| | Male (N=150) | | Female (N=150) | | T Value |
| | Mean | S.D | Mean | S.D | |
| Word fluency | 14.85 | 19.48 | 11.38 | 3.49 | 1.7 |
| Ideational fluency | 12.98 | 4.55 | 9.97 | 3.60 | 5.1* |
| Associational fluency | 13.49 | 3.48 | 12.02 | 4.10 | 0.3 |
| Expressional fluency | 13.34 | 4.98 | 9.55 | 3.72 | 2.7* |
| Spontaneous flexibility | 0.56 | 0.87 | 0.60 | 0.73 | 6.0* |
| Adaptive flexibility | 1.15 | 0.60 | 1.33 | 0.72 | 0.9 |
| Originality | 1.01 | 0.73 | 1.11 | 0.70 | 1.9 |
| Elaboration | 1.25 | 0.62 | 1.37 | 0.77 | 1.2 |
| Overall creativity | 59.47 | 20.35 | 47.33 | 9.12 | 5.4* |

*Significant at 5% level of significance

Comparison of Adolescent's Creativity on the Basis of Academic Achievement

Table 3 unfolds the fact related to mean difference using ANOVA for the impact of academic achievement on creativity of adolescents. Significant results were found in spontaneous flexibility in which students with below 5.99 scores were superior (M=0.75) and were statistically and significantly different their counterparts. No significant difference was observed between high and medium scorers. In expressional fluency students who had scores between 6.0 and 7.99 were comparatively better (M=12.14). In originality low scorers were better (M=1.21). While in overall creativity high achievers were more creative (M=56.62).

Table 3: Mean Differences in Sub Aspects of Creativity on the Basis of Academic Achievement of Respondents

| Academic Achievement Variables | 8.0 Or Above (N=48) | Between 6.0 & 7.99 (N=178) | Below 5.99 (N=74) | F Value |
|-----------------------------------|------------------------|-------------------------------|----------------------|---------|
| | Mean±S.D | Mean±S.D | Mean±S.D | |
| Word fluency | 13.83±3.60 | 13.61±14.78 | 12.20±3.52 | 0.44 |
| Ideational fluency | 11.81±3.72 | 11.46±4.02 | 11.52±4.96 | 0.12 |
| Spontaneous flexibility | 0.39±0.70 | 0.56±0.83 | 0.75±0.90 | 2.86 |
| Associational Fluency | 12.62±3.57 | 13.50±3.61 | 12.77±3.60 | 1.74 |
| Expressional fluency | 11.64±4.50 | 12.14±4.44 | 10.18±4.42 | 5.03 |
| Originality | 0.85±0.71 | 0.89±0.77 | 1.21±0.55 | 5.86 |
| Adaptive flexibility | 1.12±0.63 | 1.30±0.67 | 1.29±0.59 | 1.48 |
| Elaboration | 1.31±0.86 | 1.54±0.75 | 1.36±0.69 | 2.68 |
| Overall Creativity | 56.62±19.0 | 54.68±14.61 | 51.32±9.75 | 2.24 |

*Means with different superscripts in the same row differ significantly at 5% level of significance

Comparison of Adolescent's Creativity on the Basis of Educational Board

Table 4 illustrated the educational board wise comparison of various aspects of creativity. The significant F-values show that there is a significant difference in terms of word fluency, ideational fluency, associational fluency, expressional fluency, originality, elaboration as well as in overall creativity. The respondents from CBSE board achieved highest scores in word fluency ($M=14.65$) ideational fluency ($M=12.98$) followed by ICSE and HBSE board students. In terms of associational fluency ICSE board students scored highest ($M=14.03$) which differ significantly from their counterparts. However, no significant difference was observed between mean values of CBSE and HBSE board students in associational fluency.

With regard to the expressional fluency the mean value of CBSE students ($M=13.34$) was highest. The significant differences between the mean values of all the educational boards were observed.

Further, the significant F-values in comparison of originality shows that HBSE students had highest scores in ideational fluency which differ significantly from other two educational boards i.e. ICSE and CBSE boards. With reference to the mean values of elaboration, the results demonstrates that ICSE students had more ability to elaborate ($M=1.77$) than their counterparts and differ significantly from CBSE and HBSE students.

It is clear from the significant F-values that there is a significant difference between the creativity levels of CBSE, ICSE with respect to HBSE board students. The students from CBSE board are more creative ($M=59.47$) than HBSE students. However, no significant differences were observed between creativity levels of CBSE and ICSE boards as the table depicts.

Table 4: Mean Differences in Various Aspects of Creativity on the Basis of Educational Boards

| Variables | Educational Boards | | | |
|-------------------------|--------------------|--------------|--------------|---------|
| | CBSE (N=100) | HBSE (N=100) | ICSE (N=100) | F Value |
| Word fluency | 14.85±19.48a | 11.38±3.49b | 13.67±3.07ab | 2.33* |
| Ideational fluency | 12.98±4.55a | 9.97±3.60c | 11.66±3.92b | 13.8* |
| Spontaneous flexibility | 0.56±0.87 | 0.60±0.73 | 0.59±0.90 | 0.6 |
| Associational fluency | 13.49±3.48ab | 12.02±4.10b | 14.03±2.87a | 8.7* |
| Expressional fluency | 13.34±4.98a | 9.55±3.72c | 11.8±3.91b | 20.2* |
| Originality | 1.01±0.73a | 1.11±0.70a | 0.790±0.71b | 5.1* |
| Adaptive flexibility | 1.15±0.60 | 1.33±0.725 | 1.34±0.60 | 2.7 |
| Elaboration | 1.25±0.62b | 1.37±0.774b | 1.77±0.75a | 14.3* |
| Overall creativity | 59.47±20.35a | 47.3±9.12b | 55.7±7.67a | 20.8* |

*Means with different superscripts in the same row differ significantly at 5% level of significance

School Environment of Adolescents

Table 5 summarizes the results regarding school environment of different educational board schools. Majority of CBSE and HBSE students (61 % and 79 % respectively) received low creative stimulation. However, 69 per cent of students studying in ICSE board school reported that they receive medium level of creative stimulation. Further, it was found that 47 per cent of CBSE students were highly encouraged cognitively as compared to HBSE students in which 90 per cent of students reported that they receive low cognitive encouragement. While high per cent of ICSE students i.e. 59 per cent scored high in cognitive encouragement.

Table further emphasized that 56 per cent of CBSE students perceived medium level of permissiveness, 59 per cent HBSE students' perceived high permissiveness. Only 6 per cent of ICSE students perceived high permissiveness as

compared to 91 per cent of respondents who perceive low permissiveness.

The results related to distribution of respondents against sub aspect acceptance shows that highest per cent of (72%) CBSE students, 97 per cent of HBSE students and 63 per cent ICSE students felt moderately accepted at their schools. The data clearly depicts that in CBSE and HBSE board schools highest percent of students (i.e. 40 per cent and 65 per cent respectively) were moderately accepted as compared to ICSE students in which maximum students (79%) feel low rejection. The 89 per cent of CBSE board 84 per cent of ICSE students perceive moderately controlled at school while maximum HBSE students (87%) perceive low level of control.

Table 5: Sub Aspects of Adolescent's School Environment across Educational Boards

| Sr. No. | Type of Board Variable | CBSE (N=100) | HBSE (N=100) | ICSE (N=100) | Total (N=300) |
|---------|-------------------------|--------------|--------------|--------------|---------------|
| 1. | Creative stimulation | 61(61.0) | 79(79.0) | 30(30.0) | 170(56.6) |
| | Low (20-35) | 30(30) | 18(18.0) | 69(69.0) | 117(39.0) |
| | Medium (35.1-50) | 9(9.0) | 3(3.0) | 1(1.0) | 13(4.3) |
| | High (50.1-65) | | | | |
| 2. | Cognitive encouragement | 10(10.0) | 90(90.0) | 8(8.0) | 108(36) |
| | Low (20-30) | 43(43.0) | 7(7.0) | 33(33.0) | 83(27.6) |
| | Medium (30.1-40) | 47(47.0) | 3(3.0) | 59(59.0) | 109(36.3) |
| | High (40.1-50) | | | | |
| 3. | Permissiveness | 42(42.0) | 2(2.0) | 91(91.0) | 135(45.0) |
| | Low (5-15) | 56(56.0) | 39(39.0) | 3(3.0) | 98(32.6) |
| | Medium (15.1-25) | 12(12.0) | 59(59.0) | 6(6.0) | 77(25.6) |
| | High (25.1-35) | | | | |
| 4. | Acceptance | 2(2.0) | 3(3.0) | 63(63.0) | 5(1.6) |
| | Low (0-20) | 72(72.0) | 97(97.0)- | 37(37.0) | 232(77.3) |
| | Medium (20.1-40) | 26(26.0) | | | 63(21.0) |
| | High (40.1-60) | | | | |
| 5. | Rejection | 37(37.0) | 34(34.0) | 79(79.0) | 150(50.0) |
| | Low (10-25) | 40(40.0) | 65(65.0) | 21(21.0)- | 126(42.0) |
| | Medium (25.1-40) | 23(23.0) | 1(1.0) | | 24(8.0) |
| | High (40.1-55) | | | | |
| 6. | Control | 4(4.0) | 87(87.0) | 12(12.0) | 103(34.3) |
| | Low (0-25) | 89(89.0) | 13(13.0)- | 84(84.0) | 186(62.0) |
| | Medium (25.1-50) | 7(7.0) | | 4(4.0) | 11(3.6) |
| | High (50.1-60) | | | | |

*Figures in parentheses indicate parentages

Home Environment of Adolescents

Table 6 illustrated educational board wise distribution of various sub aspects of home environment. Results disclosed that 41 per cent of CBSE students had medium control followed by 72 per cent of HBSE and 60 percent of ICSE board students. Similar trends were observed in protectiveness in which major percent (68.6%) of total students had medium protectiveness in their home, 74 per cent, 72 per cent and 60 per cent from CBSE, HBSE and ICSE boards respectively.

Further, high percentage of CBSE students (57%) faced high level of punishment. On the contrary majority of both HBSE (71%) and ICSE (55%) board students receive moderate level of punishment.

Majority of students studying in CBSE students had high conformity while major percentage of HBSE (50%) and ICSE board students (74%) had medium level of conformity.

The respondents from all three educational boards had low social isolation. Major percentage of students from their respective boards i.e. 56 per cent from CBSE board, 62 per cent from HBSE followed by 49 per cent in ICSE board had faced low level of social isolation in their homes.

Further the table illustrate that 68 per cent of CBSE board students, 61 per cent of HBSE board and 57 per cent of ICSE board students were rewarded less at home. Data clearly indicates that majority of HBSE students (59%) followed by 52 per cent of HBSE and 51 per cent of ICSE students fall in medium range regarding deprivation of privileges which together constituted 54 per cent of total sample.

Table 6: Sub Aspects of Home Environment of Adolescents Across Educational Boards

| Sr. No. | Type of Board Variables | CBSE (N=100) | HBSE (N=100) | ICSE (N=100) | Total (N=100) |
|---------|---|----------------------------------|----------------------------------|-----------------------------------|-----------------------------------|
| 1. | Control Low (0-15) Medium (15.1-25) High (25.1-35) | 29(29.0) 41(41.0) 30(30.0) | 3(3.0) 72(72.0) 25(25.0) | 3(3) 60(60) 37(37) | 35(11.6) 173(57.6) 92(30.6) |
| 2. | Protectiveness Low (0-15) Medium (15.1-25) High (25.1-35) | 19(19.0) 74(74.0) 7(7.0) | 17(17.0) 72(72.0) 11(11.0) | 29(29.0) 60(60.0) 11 (11.0) | 65(21.6) 206(68.6) 29(9.66) |
| 3. | Punishment Low (10-20) Medium (20.1-30) High (30.1-40) | 43(43.0) 57(57.0) | 2(2.0) 71(71.0) 27 (27.0) | 7(7.0) 55(55.0) 12(12.0) | 9(3.0) 169(56.3) 96(32.0) |
| 4. | Conformity Low (10-20) Medium (20.1-30) High (30.1-40) | 36(36.0) 23(23.0) 41(41.0) | 27(27.0) 50(50.0) 23(23.0) | 1(1.0) 74(74.0) 25 (25.0) | 64(21.3) 147(49.0) 89(29.6) |
| 5. | Social isolation Low (15-25) Medium (25.1-35) High (35.1-45) | 56(56.0) 40(40.0) 4(4.0) | 62(62.0) 30(30.0) 8(8.0) | 49(49.0) 37(37.0) 14(14.0) | 167(55.6) 107(35.6) 26(8.6) |
| 6. | Reward Low (20-25) Medium (25.1-30) High (30.1-35) | 68(68.0) 8(8.0) 24(24.0) | 61(61.0) 18(18.0) 21(21.0) | 57(57.0) 15(15.0) 28(28.0) | 186(62.0) 41(13.6) 73(24.3) |
| 7. | Deprivation of privileges Low (0-10) Medium (10.1-20) High (20.1-30) | 40(40.0) 59(59.0) 1(1.0) | 48(48.0) 52(52.0) - | 49(49.0) 51(51.0) - | 137(45.6) 162(54) 1(0.3) |
| 8. | Nurturance Low (0-20) Medium (20.1-40) High (40.1-50) | 80(80.0) 19(19.0) 1(1.0) | 45(45.0) 55(55.0) - | 1(1.0) 97(97.0) 2(2.0) | 126(42.0) 171(57.0) 3(1.0) |
| 9. | Rejection Low (0-10) Medium (10.1-20) High (20.1-30) | 15(15.0) 75(75.0) 10(10.0) | 9(9.0) 55(55.0) 36(36.0) | 3(3.0) 95(95.0) 2(2.0) | 27(9.0) 225(75.0) 48(16.0) |
| 10. | Permissiveness Low (0-10) Medium (10.1-20) High (20.1-30) | 36(36.0) 58(58.0) 6(6.0) | 2(2.0) 38(38.0) 60(60.0) | 51(51.0) 48(48.0) 1(1.0) | 89(29.6) 144(48.0) 67(22.3) |

*Figures in parentheses indicate percentage

Correlation of Creativity with Home Environment

Table 7 reveals correlation of various aspects of home environment with sub aspects of creativity. Word fluency (WF) was found to be negatively and significantly correlated with control ($r=-0.18$). Ideational fluency (IF) was positively correlated with punishment ($r=0.13$), conformity ($r=0.17$), deprivation of privileges ($r=0.14$) and nurturance ($r=0.15$) while negatively and significantly correlated with permissiveness ($r=-0.23$). Punishment at home was positively correlated with associational fluency ($r=0.13$). Rejection ($r=-0.26$) and permissiveness were negative correlates of expressional fluency.

Further control ($r=0.11$) and conformity ($r=0.19$) were found to be negatively and significantly correlated with spontaneous flexibility (SF) while reward ($r=-0.16$) was negatively correlated with same. Significant and positive correlation was found between nurturance ($r=0.27$), rejection ($r=0.36$), permissiveness ($r=0.13$), composite home environment ($r=0.20$) and adaptive flexibility (AF).

Punishment sub aspect of home environment was found to be negatively and significantly correlated with elaboration (Ela.). Nurturance ($r=0.32$), rejection ($r=0.18$) and composite home environment ($r=0.20$) were positively correlated with elaboration. Reward (0.14) was significantly and positively correlated with overall creativity

Table 7: Correlation between Creativity and Home Environment

| Sub Aspects of Home Environment | Sub aspects of Creativity | | | | | | Orig. | Ela. | Overall Creativity |
|---------------------------------|---------------------------|---------|-------|---------|---------|---------|--------|--------|--------------------|
| | WF | IF | AF | Ex.F | SF | Ad.F | | | |
| Control | -0.18** | -0.04 | -0.05 | 0.02 | 0.11* | 0.00 | 0.11 | 0.04 | -0.05 |
| Protectiveness | 0.08 | 0.04 | -0.09 | 0.08 | -0.03 | 0.043 | 0.11* | 0.03 | 0.06 |
| Punishment | 0.11* | 0.13* | 0.13* | -0.08 | 0.00 | -0.093 | 0.02 | 0.15** | 0.07 |
| Conformity | 0.10 | 0.17** | 0.03 | 0.01 | 0.19** | 0.038 | 0.02 | 0.04 | 0.07 |
| Social isolation | -0.04 | -0.79 | -0.00 | 0.04 | -0.00 | -0.009 | -0.09 | 0.07 | 0.03 |
| Reward | 0.08 | 0.07 | 0.05 | 0.05 | -0.16** | -0.002 | -0.00 | 0.07 | 0.14** |
| Deprivation of privileges | 0.09 | 0.14* | 0.02 | -0.09 | -0.00 | 0.073 | 0.07 | -0.06 | -0.08 |
| Nurturance | 0.10 | 0.15** | 0.05 | 0.01 | 0.08 | 0.273** | 0.27** | 0.32** | -0.05 |
| Rejection | -0.03 | 0.07 | -0.03 | -0.26** | -0.00 | 0.364** | 0.36** | 0.18** | -0.07 |
| Permissiveness | -0.08 | -0.23** | -0.06 | -0.34** | -0.08 | 0.132* | 0.13* | 0.08 | -0.09 |
| Composite home environment | 0.05 | 0.04 | 0.00 | -0.05 | 0.05 | 0.200** | 0.20** | 0.14* | 0.04 |

* Significant at 5% level of significance

**Significant at 1% level of significance

Correlation of Creativity with School Environment

Table 8 reveals the correlation various aspects of school environment with sub aspects of creativity. Creative stimulation ($r=0.17$), cognitive encouragement ($r=0.19$) were positively and significantly correlated with word fluency (WF). While permissiveness ($r=-0.15$) and rejection ($r=-0.16$) were negative correlates of the word fluency.

Cognitive encourage ($r=0.23$), rejection ($r=0.15$), control ($r=0.32$) and composite school environment were found to be positively correlated with ideational fluency (IF) while acceptance was found to be negatively and significantly correlated ($r=-0.15$). Further control ($r=0.15$) and cognitive encouragement were significantly and positively correlated with associational fluency (AF). Expressional fluency (Ex. F) on the other hand was positively correlated with cognitive encouragement ($r=0.24$) while negatively correlated with permissiveness (-0.14).

Spontaneous flexibility (SF) was found to be negatively and significantly correlated with rejection ($r=0.12$) at school. Adaptive flexibility was found to be negatively and statistically significant correlated with rejection (-0.12). Similarly, originality (Orig.) was found to be negatively and significantly correlated with cognitive encouragement ($r=0.14$) and control ($r=0.21$). Elaboration (Ela.) sub aspect of creativity was significantly and positively correlated with cognitive encouragement (0.15). While negatively correlated with creative stimulation ($r=-0.12$), rejection ($r=0.21$) and control ($r=0.51$). Data disclosed that overall creativity was significantly and positively correlated with cognitive encouragement ($r=0.17$), permissiveness ($r=0.14$), control (0.16) and composite school environment ($r=0.15$)

Table 8: Correlation between Creativity and School Environment

| Sub Aspects of School Environment | Sub Aspects of Creativity | | | | | | | | Overall Creativity |
|-----------------------------------|---------------------------|---------|--------|--------|-------|--------|---------|---------|--------------------|
| | WF | IF | AF | Ex. F | SF | Ad. F | Orig. | Ela. | |
| Creative stimulation | 0.17** | 0.06 | -0.04 | 0.13* | -0.46 | -0.47 | -0.09 | -0.12* | 0.05 |
| Cognitive encouragement | 0.19** | 0.23** | 0.13* | 0.24** | -0.52 | -0.36 | -0.14* | 0.15** | 0.17** |
| Permissiveness | -0.15** | 0.10 | 0.09 | -0.14* | -0.06 | -0.58 | -0.64 | -0.03 | 0.14* |
| Acceptance | 0.14* | -0.15** | -0.10 | -0.03 | 0.05 | -0.43 | 0.10 | 0.11 | -0.10 |
| Rejection | -0.16** | 0.15** | -0.03 | 0.11 | 0.12* | -0.12* | -0.04 | -0.21** | 0.07 |
| Control | 0.07 | 0.32** | 0.15** | -0.03 | 0.06 | 0.06 | -0.21** | -0.15** | 0.16** |
| Composite school environment | 0.08 | 0.22** | 0.02 | 0.02 | -0.00 | -0.00 | -0.10 | -0.00 | 0.15** |

*Significant at 5% level of significance

**Significant at 1% level of significance

CONCLUSIONS

At the end of the research it can be concluded that there exist a difference in the levels of creativity among the students of different educational boards. There was significant difference in the creativity on the basis of gender and across educational boards. Similarly, there was a difference in home environment like control, punishment, conformity and in all aspects of school environment among students of three educational board schools. It was found that composite home environment do not contribute in development of creativity. While school environment was found as an important factor which affects the creativity among adolescents. As Vygotsky in his socio-cultural approach suggested the that children learn from surroundings or socio-cultural matrix. This study concluded that the role of teachers is supreme in guiding and directing the creativity and potentialities of students. Schools should adopt the methods of teaching and learning by providing adequate infrastructure which inturns, enhance and nurture the divergent production abilities of children. Upadhyay (1983) supported that method of dealing the class, curricular subjects and the behaviour of the teachers are some of the factors, which make the classroom environment-favourable or unfavourable, as gratifying or discouraging to the pupil. Manoharan and Sundaram (2003) studied certain school variables as related to classroom climate and teacher's teaching as perceived by higher secondary students. And there is significant and moderate relationship between classroom climate and teachers teaching effectiveness as perceived by students. Although students' social and economic circumstances appear to be the most important factors, studies have found that the quality of the schools can make a difference to outcomes (Cassen, 2007).

ACKNOWLEDGEMENTS

The research work is a part of master's research of author. The research was funded by Indian Council Agricultural Research through junior research fellowship awarded for masters in human development and family studies. The support and guidance provided by Department of HDFS and Department of HECM, I.C College of Home Sciences, CCS HAU, Hisar.

REFERENCES

1. Cassen, R.G. 2007. *Tackling low educational achievement*. Joseph Rowntree Foundation
2. Goleman, D. 2008. *Emotional intelligence*. New York: Bantam Books.
3. Guilford, G.F. 1967. *The Nature of Human Intelligence*; New York: McGraw Hill.
4. Guilford, J.P. 1950. *American Psychologist*. 5(9):444-454
5. Manohar & Sundaram, M. N. 2003. *Certain school variables as related to classroom climate and teacher's teaching effectiveness as perceived by higher secondary students*. *Journal of Educational Research and Extension*.40 (1):1-6
6. Misra, K.S. 1984. *Manual for School Environment Inventory*, National Psychological Corporation, Agra
7. Misra, K.S. 1989. *Manual for Home Environment Inventory*. National Psychological Corporation, Agra.
8. Sharma, K.N. 2011. *Divergent Production Abilities*. National Psychological Laboratory, Agra
9. Torrance, E. P. & Ball, O. E.2008. *Streamlined Scoring Workbook, Figural A. Torrance Test of Creative Thinking*. Bensenville, I. L: Scholastic Testing Service, Inc
10. Torrance, E.P . 1962. *Guiding Creative Talent*. Englewood Cliffs, NJ: Prentice Hall.
11. Upadhyaya, S.SN. 1983. *Student Satisfaction in classrooms Raipur*. Bhasika Prakashan
12. Vygotsky, L.S. 1978. *Mind in society: The development of higher psychological processes*. Cambridge, Mass: Harvard University Press

